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PTO/SB/21 (09-04)**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/613,357
Filing Date	July 2, 2003
First Named Inventor	Suzuki, Motoyuki
Art Unit	2127
Examiner Name	Unassigned
Attorney Docket Number	16869B-080500US

**ENCLOSURES (Check all that apply)**

- |   |  |  |
|---|--|--|
| <input checked="" type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input type="checkbox"/> Information Disclosure Statement<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Reply to Missing Parts/ Incomplete Application<br><input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input checked="" type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br>Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____<br><input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>Appendix A, and 4 Refs.<br>Table of Contents<br>Return Postcard |
|---|--|--|
- Remarks: The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

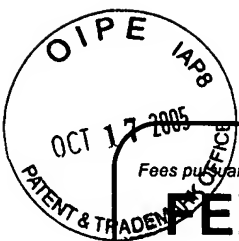
Firm Name	Townsend and Townsend and Crew LLP
Signature	
Printed name	George B. F. Yee
Date	October 13, 2005

Reg. No.	37,478
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**CERTIFICATE OF TRANSMISSION/MAILING**

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Signature	
Typed or printed name	Cynthia McKinley
Date	October 13, 2005



Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL**  
**For FY 2005**☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$ ) 130**Complete if Known**

Application Number	10/613,357
Filing Date	July 2, 2003
First Named Inventor	Suzuki, Motoyuki
Examiner Name	Unassigned
Art Unit	2127
Attorney Docket No.	16869B-080500US

**METHOD OF PAYMENT** (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_  
☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES Small Entity		SEARCH FEES Small Entity		EXAMINATION FEES Small Entity		Fees Paid (\$)
	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Small Entity	
	Fee (\$)	Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
_____ -20 or HP = _____	x _____	= _____		_____	_____	_____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
_____ -3 or HP = _____	x _____	= _____	

HP = highest number of independent claims paid for, if greater than 3

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____	/ 50 = _____	(round up to a whole number) x _____	= _____	

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other: Petition Fee**Fees Paid (\$)**130**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent)	37,478	Telephone	650-326-2400
Name (Print/Type)	George B. F. Yee			Date	October 13, 2005



PATENT  
Docket No.: 16869B-080500US  
Client Ref. No.: HAL 257 (340300820US1)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Motoyuki Suzuki

Application No.: 10/613,357

Filed: July 2, 2003

For: Method and Apparatus for Data  
Integration Security

Customer No.: 20350

Confirmation No. 7268

Examiner: Unassigned

Technology Center/Art Unit: 2127

PETITION TO MAKE SPECIAL FOR  
NEW APPLICATION PURSUANT TO  
37 C.F.R. § 1.102(d) &  
M.P.E.P. § 708.02, Item VIII,  
ACCELERATED EXAMINATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is a petition to make special the above-identified application in accordance with MPEP § 708.02, Item VIII, accelerated examination. The application has not received any examination by the Examiner.

(A) The Commissioner is authorized to charge the petition fee of \$130 under 37 C.F.R. § 1.17(h), and any additional fees that may be associated with this petition may be charged to Deposit Account No. 20-1430.

(B) All the claims are believed to be directed to a single invention. If the examiner determines that all the claims presented are not obviously directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status where the specific grouping of claims will be determined by the examiner.

10/18/2005 HDEMESS1 00000050 201430 10613357

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(C) A pre-examination search was performed by an independent patent search firm. The pre-examination search includes a classification search, a computer database search, and a keyword search. The classification search covered the following classes and sub-classes:

**Class / Subclasses**  
**709 / 213, 246**  
**711 / 147**  
**713 / 150**

Additionally, a computer database search was conducted on the USPTO systems EAST and WEST. The following references were identified in the search report:

- (1) U.S. Patent No.:
  - 6,735,765 Schumacher
  - 6,754,679 Oheda
- (2) U.S. Patent Application Publication Nos.:
  - 2002/0059263 Shima et al.
  - 2004/0044803 Mashima
- (D) The above references are enclosed herewith, collectively as Exhibit A.
- (E) Set forth below is a detailed discussion of the references, pointing out with particularity how the claimed subject matter recited in the claims, amended according to the preliminary amendment filed herewith, is distinguishable over the references.

**Claimed Subject Matter of the Present Invention**

There are four independent claims among the twenty-five pending claims.

Independent claim 1 recites a method for performing data integration comprising among other things extracting data from a first database in first computer system, data having a first file format and a first character-set format. The data is encrypted using a first security key. The encrypted data is stored in a shared volume in a storage system. The encrypted data is received at a second computer system that is different from the first computer system. The received data is converted from the first file format to a second file format that is suitable for the second computer system. The received data is decrypted using a second security key that is

associated with the first security key. The received data is converted from the first character-set format to a second character-set format.

Independent claim 15 recites a method for performing data integration comprising extracting data from a first database associated with a first computer system, the extracted data having a first format. The method further includes encrypting the data using a first security key, and storing the encrypted data in a shared volume in a storage system. The first security key is a public key of a second computer system that is configured to handle data having a second format, wherein the first format and the second format are different.

Independent claim 16 recites a method for sharing data between a plurality of computer systems comprising receiving encrypted data from a shared volume of the storage system at a second computer system of a second type. The encrypted data being data that has been extracted from a first volume of the storage system that is associated with a first computer system of a first type. The method further comprises converting the received data from a first format to a second format, the first format being suitable for the first computer system and the second format being suitable for the second computer system. The method still further comprises decrypting the received data using a second security key that is associated with a first security key that has been used to encrypt the extracted data at the first computer system.

Independent claim 23 recites a computer storage system having code that performs the method of claim 16.

Independent claim 24 recites a computer readable medium comprising code that performs the method of claim 16.

**U.S. Patent No. 6,735,76 Schumacher**

The patent to Schumacher (6,735,765), assigned to Storage Technology Corporation, provides for Sharing Data Between Operating Systems. Disclosed is a distributed computer system 10 that includes server computer 12 having application host system 22, and client system 14 that uses a different operating system than the host system. Server 12 also includes primary storage controller 24 and primary storage disk array 28 that stores primary volume 80 which contains database information 88 that is formatted to be accessible by host

system 22. Database information 88 is made available to client system 14 through the creation of a shared target volume 82 that contains the data of primary volume 80 translated to a format that is readable by the operating system of the client system. The translation may be automatic and may include a translation of character sets (see column 6, line 33-column 7, line 17).

As to **claim 1**, the sharing of files between OS's as described by Schumacher does not teach or suggest the combination of recited steps including extracting data from a first database, encrypting the data, storing the encrypted data on a storage volume, and receiving the data at a computer system different from the computer system of the first database.

As to **claim 15**, the sharing of files between OS's as described by Schumacher does not teach or suggest the combined recited steps of extracting data of a first file format from a database of a first computer system, encrypting the data using a first security key, and storing the encrypted data on a shared volume, where the first security key is a public key of a second computer system.

As to **claim 16**, the sharing of files between OS's as described by Schumacher does not show the recited combination of steps comprising receiving encrypted data from a shared volume where the data was obtained from a first computer and converting the received data from a first format to a second format where the first format is suitable for the first computer system and the second format is suitable to the computer at which the encrypted data is received. The Schumacher reference does not show or suggest the computer system recited in claim 23, for the same reasons set forth with respect to claim 16. The Schumacher reference does not show or suggest the computer readable medium recited in claim 24, for the same reasons set forth with respect to claim 16.

**U.S. Patent No. 6,754,679 Oheda**

The patent to Oheda (6,754,679), assigned to Hitachi, Ltd., provides for a Computer System with a Plurality of Database Management Systems. Enterprise application 260 and database management software (DBMS) 250-1 operating on mainframe 320 store data on volume 110-1 of disk storage system 100. Information system application 270-2 and DBMS 250-2 of open-system server 300-1 references data in volume 110-3 of the disk storage system.

Volume 110-1 used by the mainframe uses a CKD data format while volume 110-3 used by the open-system uses an FBA data format. Data is replicated from volume 110-1 to volume 110-3 by first creating shared volume 110-2 for storing intermediate data that is accessible by both systems. Data extracted from volume 110-1 by the mainframe is written as a VSAM file to shared volume 110-2 where it is then converted by access library 245 to a format that is understood by DBMS 250-2 before finally being passed to DMBS 250-2 (see column 5, line 45- column 6, line 29).

As to **claim 1**, the Oheda patent does not teach or suggest the combination of recited steps including extracting data from a first database, encrypting the data, storing the encrypted data on a storage volume, receiving the data at a computer system different from the computer system of the first database, and converting the received data from a first file format to a second file format suitable for the second computer where it is then decrypted.

As to **claim 15**, the Oheda patent does not teach or suggest the combined recited steps of extracting data of a first file format from a database of a first computer system, encrypting the data using a first security key, and storing the encrypted data on a shared volume, where the first security key is a public key of a second computer system and where the first file format is different from the file format of the second computer system.

As to **claim 16**, the Oheda reference does not show the recited combination of steps comprising receiving encrypted data from a shared volume where the data was from a first computer, converting the received data from a first format to a second format where the first format is suitable for the first computer system and the second format is suitable to the computer at which the encrypted data is received. The Oheda reference does not show or suggest the computer system recited in claim 23, for the same reasons set forth with respect to claim 16. The Oheda reference does not show or suggest the computer readable medium recited in claim 24, for the same reasons set forth with respect to claim 16.

**U.S. Patent Application Publication No. 2002/0059263 Shima et al.**

The patent application publication to Shima et al. (2002/0059263) provides for a Data Management System for Storages. SAN A-9 is connected through fibre switch A-7 to host A, host B, and SAN-FM, which are running different operating systems. Files in the storage system are composed of control sections and information sections, and each host uses a specific file format type that is different from the other hosts. Data to be stored on the SAN by the hosts is converted into a common format and encrypted by SAN-FS (see paragraphs 33-34 and 42-43).

As to **claim 1**, Shima et al. do not teach or suggest the combination of recited steps including extracting data from a first database and encrypting the data; Shima et al. describe converting to a common format and then encrypting. Shima et al. do not teach or suggest storing the encrypted data on a storage volume, receiving the data at a computer system different from the computer system of the first database, and converting the received data from a first file format to a second file format suitable for the second computer where it is then decrypted.

As to **claim 15**, Shima et al. do not teach or suggest the combined recited steps of extracting data of a first file format from a database of a first computer system and encrypting the data using a first security key; Shima et al. describe converting to a common format and then encrypting. Shima et al. do not teach or suggest storing the encrypted data on a shared volume, where the first security key is a public key of a second computer system and where the first file format is different from the file format of the second computer system.

As to **claim 16**, Shima et al. do not show the recited combination of steps comprising receiving encrypted data from a shared volume where the data was from a first computer, converting the received data from a first format to a second format where the first format is suitable for the first computer system and the second format is suitable to the computer at which the encrypted data is received. Shima et al. do not show or suggest the computer system recited in claim 23, for the same reasons set forth with respect to claim 16. Shima et al. do not show or suggest the computer readable medium recited in claim 24, for the same reasons set forth with respect to claim 16.



**U.S. Patent Application Publication No. 2004/0044803 Mashima**

The patent application publication to Mashima (2004/0044803), assigned to Hitachi, Ltd., provides for a Storage Control Apparatus and Method for Controlling the Same. Disk array apparatus 30 provides storage for mainframe 10, as mainframe volume 31, and open computer 20, as open volume 33, and also includes intermediate volume 32. Data in mainframe volume 31 and intermediate volume 32 is stored in CKD format while data in open volume 33 is stored in FBA format. Conversion engine 35 running on the disk array apparatus allows data stored in the FBA format on open volume 33 to be translated to CKD format and stored on the intermediate volume. Data stored on the intermediate volume in CKD format can be translated and stored in FBA format on the open volume (see paragraphs 41-46).

As to **claim 1**, Mashima does not teach or suggest the combination of recited steps including extracting data from a first database, encrypting the data, storing the encrypted data on a storage volume, receiving the data at a computer system different from the computer system of the first database, and converting the received data from a first file format to a second file format suitable for the second computer where it is then decrypted.

As to **claim 15**, Shima et al. do not teach or suggest the combined recited steps of extracting data of a first file format from a database of a first computer system, encrypting the data using a first security key, and storing the encrypted data on a shared volume, where the first security key is a public key of a second computer system and where the first file format is different from the file format of the second computer system.

As to **claim 16**, Shima et al. do not show the recited combination of steps comprising receiving encrypted data from a shared volume where the data was from a first computer, converting the received data from a first format to a second format where the first format is suitable for the first computer system and the second format is suitable to the computer at which the encrypted data is received. Shima et al. do not show or suggest the computer system recited in claim 23, for the same reasons set forth with respect to claim 16. Shima et al. do not show or suggest the computer readable medium recited in claim 24, for the same reasons set forth with respect to claim 16.

**Conclusion**

In view of this comments presented in the instant petition and the claim amendments presented in the accompanying preliminary amendment, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,



George B. F. Yee  
Reg. No. 37,478

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Attachments  
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60606936 v1

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